Speech Therapy

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It is only during recent years that speech therapy has become known, although for many years the treatment of speech disorders has been carried out by persons interested in the subject, and it is they who have laid the foundations of and built up what is now a recognised profession.

Very often the work of an elocutionist is confused with that of a speech therapist, but there is little similarity between the two. Certainly both deal with speech, but whereas the elocutionist seeks to improve and beautify normal speech, the work of the therapist is confined to treating defective speech in order that it may become normal. In short, the therapist leaves off where the elocutionist begins. Apart from this, the personalities required in both types of work are totally different; that of the elocutionist must be evident, while that of the therapist must be sunk, in the interest of her patient.

The objectives of speech therapy are primarily to make defective speech normal and intelligible to others, and secondarily to make it easy for the patient, so that it is with these objectives in mind that the therapist works.

Both children and adults are treated, and each patient is recognised as an individual, having individual problems and requiring individual attention.

The types of cases treatable by speech therapy are as follows :—

Stammering, lalling, aphonia and dysphonia.
Cleft palate, tongue tie, lisping, nasality due to adenoids or paralysed palate.
Motor and sensory aphasias.
Alexia and agraphia.

Speech defects resulting from :—

Mental retardation (very little can be done if the intelligence is very low).
Abiotrophies of the motor speech centre.
Localised cerebral agenesis.
Chorea.
Post encephalitis lethargica.
Bulbar weakness but not bulpar palsy.

The percentage of speech defects in school children is five per cent., one per cent. being comprised of stammerers.

Before attempting to give the causes, prognosis and treatment of the more usual of these speech defects, I should like to give you the general principle on which treatment of all defects is based.

Speech is an outlet for the emotions, and if this outlet is blocked, as it is when a speech disorder arises, the result is serious. The feeling of frustration which the patient experiences when his words will not flow freely or cannot be understood by others, must at times be almost overpowering. Then there comes to the patient a realisation of the difference between his own speech and that of others, and this

leads to a feeling of inferiority. The longer the disorder remains untreated, the more complicated will the patient's emotions become, until finally as much psychological re-education as actual speech treatment will be needed. Then again, a number of cases of speech disorders arise as the result of some emotional disorder and the cause of this must naturally be removed before a cure can be effected; thus it is seen that treatment is not confined solely to the speech, but to the whole personality, and often includes re-education of parents and teachers.

Success of treatment depends very largely upon the co-operation received from the patient, from his family and friends, and if he is a school child, from his teachers. Without this co-operation the therapist is severely handicapped, and many a failure to effect a cure has been traced to lack of it. In some cases the defect acts as a defence-mechanism, and this the patient is naturally loath to give up.

I should like to mention here that I have been very surprised by the amount of corporal punishment which is practised in the elementary schools in Belfast. The children tell me that they get slapped on the hand with a cane, not only for their misdeeds, but for failing to get a sum right or to spell correctly. In case this was exaggeration on their part I visited one of the larger schools, where a teacher admitted that there was far too much slapping in the school. It is obvious the effect that this practice has on the children. It is not only unnecessary and unfair, but definitely harmful. The children become terrified of their teachers, and have a deep-seated fear of school and everything connected with school. I believe that two or three cases of stammering with which I am dealing at present are affected by this; if it is not actually the cause of their stammer, it is a seriously aggravating factor, and until the matter is put right their progress is greatly hindered.

Another important factor concerning children with speech defects is their general health. They must be in good health and well nourished before relief or a cure can be effected. If a child is suffering pain or discomfort he cannot concentrate during his treatment nor give his energies to following out instructions, and when he is at home he will be too tired and miserable to practise his exercises, etc. Even if he is not actually in pain but is run down, he will be listless and fretful, and cannot make the effort necessary to improve his speech. This is often the case with children who come from poor homes and are undernourished. Any physical disorder, however small, is bound to affect the mental health of a child. So it is necessary that any child with a speech disorder should be under the care of a doctor.

The method of introducing play into treatment to make it more interesting, is invaluable, and this method is one which is used a great deal in speech therapy. It is not to be expected that young children will concentrate on exercises designed to improve their velar action: that is, action of the soft palate, or to enable them to gain better control of their tongue. However, as these exercises are often necessary, they are disguised in simple games which the children enjoy.

Persuasion and suggestion also play a large part in the treatment of speech disorders as they do in all curative work.

It is often necessary to condition the environment, where this appears to be the main cause of an emotional disturbance. Although this usually only means talking to parents or school teachers in an attempt to show them in what way they are hindering the progress of the patient, it is sometimes serious enough to warrant complete removal to other and more congenial surroundings. For this purpose children are occasionally sent to a convalescent home for a month or two, or their parents are advised to send the child to a new school. Some people argue that this step is little better than useless, as the return to the old environment is often necessary, and the child encounters the same difficulties as before. However, during his absence he will have gained confidence and a new outlook, both of which enable him to withstand the demands made upon his emotional life.

Although all movements require a certain amount of muscular tension, excess tension causes difficulty and straining of what should be natural and easy movements. Thus when a patient suffering from a speech defect becomes very tense through anxiety and effort to speak correctly, speech becomes more difficult, the patient becomes more tense, and so on. To counteract this, general relaxation is given; this applies mostly to cases of stammering, but where excessive tension is noted in other cases, it is also practised.

As the majority of cases of speech disorders are found among the working classes, it is only natural that strong dialects are encountered, and the therapist is often asked, "Do you teach the children to speak standard English when attempting to cure their defect, or do you allow them to retain their own pronunciation?" The answer is that the dialect is retained; the reason for this is simple, for it is easy to imagine the type of reception a young child from the Falls Road would get were he to return to his playmates minus the defect but plus a standard English accent.

There are various types of stammering which are classified according to their causation.

The true stammer is believed to have a congenital predisposition to stammering. When a child is young there may be no evidence of the weakness, but later, a shock, an accident, an uncongenial environment, or even the mere developing of speech, may act as a secondary cause, and the stammer will make its appearance. This theory is upheld by the fact that when the emotional factor has been removed a residual tic often remains.

The psychasthenic stammer, better termed the "psychological speech hold-up," originates from some emotional disturbance, and the pre-disposition does not seem to exist. This type of stammer is characterised by an inability to commence speaking, but when once started the patient is able to continue smoothly and naturally.

The pseudo stammer is an outcome of a physical condition, and is associated with such conditions as chorea, diaphragmatic tic and nervous breakdown. Although this stammer may disappear as the physical condition rights itself, it is always best to give treatment, as it alleviates the patient's anxiety and prevents the habit of stammering from forming.

The light stammer is the one which causes people to believe that if the person is left alone he will "grow out of it." It usually starts in early childhood, but given favourable conditions such as a happy home life, healthy curriculum, and the minimum of excitement, the stammer will disappear without actual speech treatment. However, a certain amount of treatment is advisable, in order to prevent the disorder becoming serious.

Some schools of thought believe in the theory that left-handedness may affect the speech adversely—that is when the naturally left-handed person has been persuaded or forced to use his right hand. A great deal of research work has yet to be done in this direction. Suffice it to say that some very successful results have been obtained by re-educating a stammerer to using his left hand when there has been a change over in his childhood. A history of left-handedness is always taken into account and every stammerer is tested for laterality.

There is no one cure for stammering. Treatment as a rule consists of :—Removal of the cause (if it can be discovered, and this is often difficult); physical relaxation and psychological and speech re-education.

If there are body tics, such as facial ones, they are treated by rhythmical movements; in the case of diaphragmatic tics, breathing exercises are given, but it must be carefully explained to the patient that these are in no way connected with his stammer.

Successful results are often not obtained until treatment has been carried on for as long as one or two years, but there are cases which can be cured in as short a time as four or five months.

In cases of cleft palate the services of a speech therapist are requried after the surgeon and dentist have accomplished their treatment. However perfect the result of an operation may be, the child cannot be expected to start talking normally straight away. If the operation has been performed after the child's speech has been fully established, the bad habit of speech which it had acquired will still remain. If, however, the speech has not been fully established before the operation, the muscles of the velum will need a great deal of exercising before normal velar action is obtained, and this velar action is essential to normal speech. Although no child can really be taught before the age of five, the way to normal speech can be paved from the age of two or three, when simple exercises for tongue, lips, velum and breath direction can be given in the form of simple games. Lip exercises are especially needed when a hare-lip is present, for difficulty with labials is then encountered. After correct breath direction has been gained, denasalisation of vowels and consonants takes place; small words are then attempted, later short phrases, and, finally, reading and conversation.

Some good results have been obtained with patients who are fitted with obturators, as well as those who have been operated upon. On the whole, the treatment of cleft palate can be said to be successful, for the patient will benefit to a greater or lesser degree.

Lalling is a stage in the development of every child, baby talk, which fails to adjust itself properly and is extended beyond the normal time. The child with

lalling may appear to be more backward than he really is, for sometimes the condition is so bad that the speech is almost unintelligible, but progress is seldom difficult. This defect may be due to some emotional disturbance, which may also show symptoms in behaviour disorders, sleep-walking, and enuresis; on the other hand, it may simply be due to neglect on the part of the parents when speech is undergoing development.

When treatment is commenced, an analysis of every sound is taken, and those which are absent or badly produced are worked on. When each faulty sound is produced correctly, both before and after vowels, one-syllable words containing the sound are attempted, and they are gradually introduced into general conversation. Length of treatment varies according to the severity of the case, but usually it takes a few months—of course, improvement will be noticed long before this, but in order that speech may become unconscious once more, a great deal of practice in conversation is necessary.

When tongue tie has been operated upon, stretching exercises for the tongue are advisable in order to prevent the frenum becoming short again. These exercises are surprisingly successful, and are also used when the frenum is extra short but an operation does not appear to be really necessary—and an operation for this is always best avoided.

In working with aphasic patients the method is that of the mental cycle or of association, and it is found to be invaluable. A chain of associations is set up between the sight of an object, the sound of its name, the written symbol, the actual writing of the name, and, if possible, the feel of the object.

In congenital auditory imperception, or congenital word deafness, the child is able to hear perfectly, but is unable to understand what he hears. Speech is of the idioglossic type, and the mentality of the child is not impaired. If the child does not have the correct treatment, his mental development may, however, become retarded, as the result of being unable to pick up information by listening to conversation around him, as most children do. Unfortunately, however, children with this defect are often diagnosed as imbeciles; the progress in most cases is good. Treatment consists, as in all aphasic conditions, of association, but, in particular, association between the sight of an object and the sound of its name. In severe cases it is necessary to commence with single letters, and the alphabet should be learnt phonetically. The reason being that this enables the patient, when seeing a word written down, to analyse the sound contents, and from this deduce what the sound of the whole word will be.

In acquired word deafness, the treatment is the same as that used in the congenital type.

If the patient is alexic, he must concentrate particularly on the written symbol in conjunction with the sound for which it stands—if he is agraphic, on the movements involved in writing the name, and so on. In cases of motor aphasia, tongue and lip exercises are also used.

Congenital aphasics are much easier to treat than acquired adult aphasics, for they have never known what it was like to have the ability to, in the case of the

motor aphasic, speak. In the adult one has to fight all the time against the patient's anxiety.

Speech disorders of hysterical origin, for example, aphonia and psychic deafness, require the usual psychological treatment as well as speech treatment. When the cause of the primary fear has been investigated, the speech therapist gives the patient exercises which are used in organic disorders of the same type, as this helps the patient to feel that something is being done. Strong suggestion is given throughout the treatment.

Case Histories.

Stammering.

Case 1—Girl aged 17.—Stammer was of the psychasthenic type, and the patient's whole demeanour was indicative of emotional instability. There were head and diaphragmatic tics, while all bodily movements were quick and jerky. Patient lacked confidence in herself to a marked degree, and was very timid. Although she wished to take her part in everyday social activities she was too timid to do so. She was a domestic servant, and her mistress spoke highly of her work and general character; patient was anxious to be a children's nurse, as she was very fond of children.

The family history was bad. The mother had committed suicide, and patient, who was then only twelve years old, was the first to find her, with her head in the gas oven. Previously to this home life had been most unhappy, due to frequent quarrels between the parents. After her mother's death, patient lived with her father until two years previous to her first visit to the clinic, when he died of pneumonia. Since that time she had been living with her brother and sister-in-law and their two children. She was not very happy, as her sister-in-law was not good tempered.

The patient had had no illnesses, but had a weak heart. There was no history or nervous disease or left-handedness in the family. Treatment consisted of physical relaxation, which greatly reduced the jerky movements of the body. The patient attended a psychiatrist for five weeks—one visit a week. After this her emotional condition was much better, but she still required a certain amount of psychological re-education. Breathing exercises were given, and these, together with the psychological treatment, cured the diaphragmatic tic. Speech re-education helped her to regain the lost rhythm of her speech. Within two months of the commencement of treatment, the patient was attending a girls' club for social evenings and swimming lessons, and began visiting friends and relations, whom she had not seen for years. At the end of four months she was ready for discharge from the clinic, although she continued to come for some weeks after this, so that a check on her progress could be kept.

Case 2—Boy aged 10.—Congenital motor aphasia and tongue tie.

The birth had been an instrumental one, and for a fortnight afterwards there was paralysis of the right side.

The tongue tie was not severe, but the patient was unable to raise it high enough for the production of t, d, l, etc., and both this and the poor movement of the

tongue due to the aphasic condition, made speech very difficult. Lip movement was also very weak, and while speaking they were hardly ever opened beyond the minimum required for breath escape.

The result was that speech was mumbling and indistinct, and the absence of certain consonants combined with poor vowel production made it at times almost unintelligible.

Tongue exercises were given for stretching the frenum, and for gaining control of the tongue. At the end of five weeks the patient was able to produce the consonants t, d, l, n, and had learnt to open his mouth well—improvement in vowel sounds was noted almost immediately.

When the boy failed to produce a word correctly, he was made to look at it written down, analyse the sound contents, and so get it firmly fixed in his mind. As he was extremely intelligent and eager to co-operate, progress was fairly rapid for the type of case, and at the end of four months it was easy to understand the speech, although he still needed a lot of practice before it became quite easy for him, and would probably attend the clinic for a year or more.

Cleft Palate.

Case 3—Girl aged 29.—Complete cleft and hare lip.

An obturator had been fitted two years previous to her first visit to the clinic, and she had had a little treatment for her speech in her home town. She left home, however, and so came to the hospital for treatment.

The obturator was found to be inadequate, and a new one was fitted, which extended over a larger area.

Although she had been practising breathing exercises for some time, these were continued.

Her labials were very weak, so that lip exercises were given, and in a few weeks time improvement was shown. Her voice was very soft and low, so she was told to concentrate on getting her voice well forward, instead of back in the throat.

The last time I saw her she had been attending the clinic for about four months, and she was managing to make herself understood fairly easily.

Cleft Palate.

Case 4—Girl aged 9.—Cleft soft palate, which had been repaired in early childhood.

Patient attended the clinic weekly for about fifteen months, during which time she was given the usual cleft palate treatment. At the end of the fifteen months her speech was normal, except for a scarcely noticeable nasal tone. This is an exceptionally good case and was due chiefly to excellent surgical treatment.

Localised Cerebral Agenesis.

Boy aged five. Had never spoken at all, although he occasionally made attempts to do so. Youngest of nine children. Birth was normal, and there was no paralysis following it. Had had whooping cough when three years old. No operations.

Patient had severe behaviour disorders, such as biting, kicking, and hitting people, and was always up to mischief. He refused to try to speak during treatment at first, although he often made a great deal of noise by yelling. His hearing was

good, as was his understanding of speech. He could write well, and could show what different objects were used for, by gesture. His intelligence, judged by performance tests, was above the average.

Treatment was very uphill work, and no progress was made for some months. Then gradually, through play, he attempted single sounds, and tongue and lip exercises. Practically all treatment was given through play, as his concentration was poor. Also, his activities during play acted as an outlet for his emotions. At the end of two years he was able to name everyday objects, his own clothes, the parts of the body, and was attempting short sentences. His behaviour disorders gradually disappeared as his speech improved, so it seems that they were due chiefly to lack of the best emotional outlet, speech.

It will be seen that the student who wishes to take up speech therapy must have a knowledge of such subjects as anatomy, physiology, general and child psychology, psychopathology, and neurology.

The syllabus of the British Society of Speech Therapists requires a two years' full-time training in speech therapy and allied subjects. There are at present only two centres where conditions are fulfilled, namely :—

(1) The West End Hospital for Nervous Diseases, London; and

(2) A course in connection with the National Hospital for Nervous Diseases, London.

There is only one diploma for speech therapy, namely, the A.S.S.T., and is open to all entrants.

A year's diploma course is also taken at the University of London, in English phonetics.

REVIEW

GARDINER'S HANDBOOK OF SKIN DISEASES. Fourth Edition. Revised by John Kinnear, M.D., M.R.C.P.(Ed.). 1939. Edinburgh : E. & S. Livingstone. Pp. 256. Price 10s. 6d. net.

THE first impressions created by this small textbook are the excellent manner in which the publishers have produced it, and the abundance of coloured plates and half-tone illustrations—sixteen of the former and seventy of the latter.

Although the book is short and concise, the descriptions given of the various diseases are good and adequate for an elementary textbook, and the illustrations are of a high order.

Here and there we find examples of looseness of expression which, although irritating, do not detract from the practical value of the instruction offered, e.g. (1) "the *other* foolish virgin," when, in fact, the folly of one virgin is being contrasted with the wisdom of the other; (2) "the use of a preparation . . . *have* sometimes been successful"; (3) "the interval between *each* period."

Certain views are expressed on oral organotherapy which will be by no means generally accepted, as, for example, when it is stated that "recent research has shown" that the effect of calcium lactate on chilblains is intensified by the simultaneous administrations of *parathyroid,* 1/10 grain twice daily, and, in the treatment of senile pruritus, when it is stated that small doses of thyroid, *ovarian* or *orchitic* extract may be used.

In spite of the minor criticisms, this book will doubtless retain its well-merited popularity, and continue to meet the needs of many medical students and general practitioners.